

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot;

a base lever defined on an undersurface of the base, the base lever defining a forward end portion, a forward base lever attachment structure defined by the forward end portion, and a longitudinal base lever axis aligned with a longitudinal axis of the received foot;

an elongate frame for mounting the glide member, the frame defining a longitudinal frame axis, a forward end portion, and a forward frame attachment structure;  
and

a hinge, defining a pivot axis, pivotably connecting the forward end portion of the base lever to the forward end portion of the frame, wherein upon pivoting of the base lever with respect to the frame, the longitudinal base lever axis, projected onto a horizontal plane passing through the longitudinal frame axis, defines a first angle of canting with respect to the longitudinal frame axis.

2. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot;

a base lever defined on an undersurface of the base, the base lever defining a forward end portion, a forward base lever attachment structure defined by the forward end portion, and a longitudinal base lever axis aligned with a longitudinal axis of the received foot; and

an elongate frame for mounting the glide member, the frame defining a longitudinal frame axis, a forward end portion and a forward frame attachment structure, wherein the forward base lever attachment structure is pivotally connected to the forward frame attachment structure, the base lever being pivotable with respect to the frame such that the longitudinal base axis passes through a base lever plane that defines a first angle of canting with respect to a frame plane defined by and extending vertically upward through the longitudinal frame axis.

3. The skate of Claim 2, wherein the pivotal connection between the base lever forward attachment structure and the frame forward end defines a hinge having a pivot axis that is vertically canted, with the pivot axis of the hinge defining a second angle of canting with respect to a horizontal plane passing through the longitudinal axis of the frame.

4. The skate of Claim 3, wherein the frame forward attachment structure further comprises:

the forward end portion of the frame having a medial and lateral side with their respective inner surfaces defining a space therebetween, the respective inner surfaces defining an angle with respect to a vertical plane passing through the longitudinal axis of the frame, the medial and lateral sides each defining an aperture for mounting the hinge.

5. The skate of Claim 4, wherein the base lever forward attachment structure further comprises:

the forward end portion of the base lever having angled side surfaces to mount in the space between the medial side and the lateral side of the forward end portion of the frame, the base lever forward attachment structure defining a passage for mounting the hinge throughbetween.

6. The skate of Claim 5, wherein the hinge further comprises:

an elongate pin mounted through the apertures defined in the medial and lateral sides of the frame, such that the ends of the pin are at varying vertical heights at their respective side of the frame and the pin traverses through the passage defined by the base lever forward attachment structure.

7. The skate of Claim 6, wherein the frame heels to the side relative to the base, upon pivoting of the base lever with respect to the frame.

8. The skate of Claim 7, wherein the glide member comprises:

a plurality of wheels, having their axis of rotation perpendicular to the longitudinal axis of the frame, wherein the wheels are attached to a lower portion of the frame substantially in an in-line fashion.

9. The skate of Claim 3, wherein the frame forward attachment structure further comprises:

the forward end portion of the frame having a planar shaped tab projecting substantially vertically upward, wherein the tab is mounted medially or laterally with respect to the longitudinal axis of the frame, the planar shape of the tab defining an angle of canting with respect to a vertical plane passing through the longitudinal axis of the frame, the tab defining an aperture for mounting the hinge therethrough.

10. The skate of Claim 9, wherein the base lever forward attachment structure further comprises:

the forward end portion of the base lever having two angled planar shaped ears projecting substantially vertically downward, each of the ears being mounted medially and laterally with respect to the longitudinal axis of the base, such that the two ears define a space for placement of the tab therein, the two of the ears each defining an aperture for mounting the hinge.

11. The skate of Claim 10, wherein the hinge further comprises:

an elongate pin mounted within the apertures defined on the medial and lateral ears, such that the pin traverses through the aperture defined by the tab.

12. The skate of Claim 11, wherein the frame heels to the side relative to the base, upon pivoting of the base with respect to the frame.

13. The skate of Claim 12, wherein the glide member comprises:

an ice skating blade aligned substantially parallel to the longitudinal axis of the frame, and mounted on a lower portion thereof.

14. The skate of Claim 3, wherein the hinge is adjustable, such that the second angle of canting may be varied vertically.

15. The skate of Claim 2, wherein the pivotal connection between the base lever forward attachment structure and the frame forward attachment structure, defines a hinge having a pivot axis that is horizontally canted, the pivot axis of the hinge defining a

third angle of canting with respect to a vertical plane perpendicular to the longitudinal axis of the frame.

16. The skate of Claim 15, wherein the hinge is adjustable, such that the third angle of canting may be varied horizontally.

17. The skate of Claim 16, wherein the frame forward attachment structure further comprises:

a planar shaped mounting member attached proximate the forward portion of the frame, the mounting member defining medial and lateral sides, the medial side and the lateral side of the mounting member defining at least one passage for mounting the hinge, the planar shape lying substantially horizontally; and

at least one fastener to securely hold the mounting member.

18. The skate of Claim 17, wherein the base lever forward attachment structure further comprises:

the forward end portion of the base lever having two planar shaped ears projecting substantially vertically downward, the two of the ears being mounted medially and laterally with respect to the longitudinal axis of the base lever, such that the two ears define a space for placement of the mounting member therein, the two of the ears each defining an aperture for mounting the hinge.

19. The skate of Claim 18, wherein the hinge further comprises:

at least one elongate pin defining a longitudinal axis, and mounted on at least one of the medial or lateral sides of the mounting member at the respective aperture defined on the medial and lateral side of the mounting member, such that the pin is received at least partially within the aperture.

20. The skate of Claim 19, wherein the glide member comprises:

an ice skating blade aligned substantially parallel to the longitudinal axis of the frame, and mounted on a lower portion thereof.

21. The skate of Claim 2, wherein the base lever forward attachment structure is pivotably connected to the frame forward attachment structure, such that a pivot axis of

a hinge, defined thereby is vertically and horizontally canted, the hinge being adjustable vertically and horizontally.

22. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot;  
a base lever defined on the undersurface of the base, the base lever defining a forward end portion;  
an elongate frame for mounting the glide member, the frame defining a forward end portion;  
a hinge, defining a pivot axis, pivotably connecting the forward end portion of the base lever to the forward end portion of the frame;  
a biasing device operably coupled to the base lever and the frame for biasing the frame towards the base lever; and  
a control device operably coupled to the frame, wherein the control device selectively opposes the biasing device, to selectively hold the frame in an open position relative to the base lever.

23. The skate of Claim 22, wherein the control device includes a flexible connector attachable to a skate-wearer and operably coupled to the forward end portion of the frame, wherein the flexible connector transmits a force from the skate-wearer to oppose the biasing device, and enabling the skate-wearer to hold the frame in an open position relative to the base lever.

24. The skate of Claim 23, further comprising a cuff for attaching to the skate wearer on a lower portion of the leg, wherein the cuff is operably connected to the flexible connector.

25. The skate of Claim 24, wherein the flexible connector is coupled to the frame, forward of the pivot axis and the biasing device is coupled to the frame, rear of the pivot axis, such that a leveraging action is produced to open the frame by tensioning the connector.

26. The skate of Claim 24, wherein the cuff is pivotably connected to the shoe portion.

27. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot, the base including a heel region and a forefoot region, the base being adapted to flex at a metatarsal region at the forefoot region during skating; and  
an elongate frame for mounting the glide member, wherein the frame is secured to an underside of the forefoot region of the base and wherein the base metatarsal region of the base is constructed to be substantially neutrally biased relative to the frame so that a skater is able to selectively control pointing of the frame relative to the base.

28. The skate of Claim 27, further comprising a guide secured to the frame for slidably engaging a follower, wherein the follower is secured to the heel portion of the base.

29. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot; and  
an elongate frame for mounting the glide member, the frame pivotably secured to an underside of the base, wherein the frame is balanced to prevent substantial biasing of the frame towards the base.

30. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot;  
an elongate frame for mounting the glide member, the frame operably coupled to the base, allowing the frame to move in an arc motion away from the base; and  
a biasing device operably mounted on the frame, for biasing the frame away from the base.

31. The skate of Claim 30, wherein the base further comprises a heel region and forefoot region, the base being adapted to flex at a metatarsal region at the forefoot

region during skating and wherein the frame is secured to an underside of the forefoot region of the base.

32. The skate of Claim 31, further comprising a guide secured to the frame for slidably engaging a follower, wherein the follower is secured to the heel portion of the base.

33. The skate of Claim 32, further comprising a controller to adjust the amount of biasing.

34. The skate of Claim 33, wherein the biasing device is a coil spring mounted on the guide and the controller is a slidable collar mounted on the guide with a thumbscrew fastener.

35. A skate including a glide member for traversing a surface, comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot;

an elongate frame for mounting the glide member, the frame operably coupled to the base, allowing the frame to move in an arc motion away from the base; and

means for canting the glide member to an inward pointing position relative to the base.

36. A skate including a glide member for traversing a surface; comprising:  
a shoe portion for receiving a skater's foot and including a base underlying the received foot;

an elongate frame for mounting the glide member, the frame operably coupled to the base, allowing the frame to move in an arc motion away from the base; and

means for opening the frame relative to the base.